

IN THE CLAIMS:

1. (Currently Amended) A fracture fixation implant comprising:

a first portion constructed and arranged adapted to be implanted within a bone across a fracture site in said bone,

a second portion integrally formed with said first portion by at least one a bend, said second portion being of a length to extend backwardly in opposite direction from said first portion across the fracture site outside the bone, said at least one bend being of a size to extend outside the bone and space the second portion from the first portion by a distance so that the second portion can to pass on a superficial surface of the bone, such that said first and second portions are juxtaposed with one another in offset planes with the first portion extending longitudinally in the bone, the second portion extending longitudinally on the outside of the bone, the arrangement being such that by applying a pulling force to said second portion, a tension force can be developed in said first and second portions, and

a fixation element having means for being adapted to be secured to said bone and for cooperating with said second portion to maintain said a tension force developed in the first and second portions and produce for producing compression of the bone across the fracture site.

2. (Previously presented) A fracture fixation implant as claimed in claim 1, comprising a tensioning device engageable with said second portion to develop said tension force and produce the compression of the bone across said fracture site.

3. (Currently Amended) A fracture fixation implant as claimed in claim 1, wherein said first portion comprises two spaced wires constructed and arranged adapted for longitudinal insertion into said bone, said wires being of a length for extending out of said bone and being integrally formed with said second portion which extends straight back

backwardly into juxtaposition with the wires of said first portion.

4. (Currently Amended) A fracture fixation implant as claimed in claim 3, wherein said second portion comprises two spaced wires continuously formed with the wires of said first portion and extending longitudinally backwards.

5. (Original) A fracture fixation implant as claimed in claim 4, wherein the wires of said second portion cross one another at a position adapted to be on said superficial back surface of the bone.

6. (Currently Amended) A fracture fixation implant as claimed in claim 4, wherein said wires of said second portion include legs spaced from one another ~~and adapted~~ to pass on said superficial surface of the bone.

7. (Original) A fracture fixation implant as claimed in claim 4, wherein the wires of said first and second portions have different diameters.

8. (Previously presented) A fracture fixation implant as claimed in claim 7, comprising a smooth transition portion between the different diameters of the wires of said first and second portions.

9. (Currently Amended) A fracture fixation implant as claimed in claim 4, wherein said wires of said second portion are joined together by a U-shaped bend portion at a location distant from where the wires of the first portion exit from the bone, said U-shaped

bend portion lying outside of ~~the planes plane 5-formed by~~ of the respective said bends joining the wires of the first and second portions.

10. (Previously presented) A fracture fixation implant as claimed in claim 9, wherein said U-shaped bend portion and said wires of the second portion are non-planar.

11. (Previously presented) A fracture fixation implant as claimed in claim 9, comprising a tensioning device engageable with said U-shaped bend portion of said second portion to develop said tension force acting across said fracture site.

12. (Currently Amended) A fracture fixation implant as claimed in claim 9, wherein said means of said fixation element for being secured to said bone comprises a bone screw, and a washer secured by said bone screw to said second portion in a position in proximity to said U-shaped bend portion.

13. (Currently Amended) A fracture fixation implant as claimed in claim 12, comprising a ~~wherein said~~ tensioning device is fitted between said washer and said U-shaped bend portion to apply force thereto which urges the U-shaped bend portion away from the first portion to produce said tension force in the wires.

14. (Currently Amended) A fracture fixation implant as claimed in claim 3, wherein said wires of said first and second portions are continuous, the wires of said first portion extending in longitudinally spaced relation and joined to the wires of said second portion with a respective said bends bend so that the wires of the second portion extend backwardly and longitudinally in the juxtaposed relation with the wires of said first portion.

15. (Original) A fracture fixation implant as claimed in claim 5, wherein the wires of said second portion cross one another at a location adapted to be placed over the fracture site.

16. (Original) A fracture fixation implant as claimed in claim 12, wherein said tensioning device is fitted in alignment with said bone screw.

17. (Previously presented) A fracture fixation implant as claimed in claim 6, wherein said wires of said first portion extend beyond the wires of said second portion.

Claim 18 (Cancelled)

19. (Previously presented) A fracture fixation implant as claimed in claim 2, wherein said tensioning device comprises a counter-bearing jaw adapted to be secured with respect to the bone and a slidable actuator jaw engageable with said second portion and movable away from said counter-bearing jaw to produce tension in said first and second portions.

20. (Original) A fracture fixation implant as claimed in claim 19, wherein said tensioning device further comprises a pair of gripper arms hingeably connected together and respectively connected to said counter-bearing jaw and said actuator jaw.

Claims 21 - 36 (Cancelled)

37. (Currently Amended) An implant for fixation of a bone fracture and for applying compression across the fracture, said implant comprising:

a wire element having a first leg constructed and arranged adapted to be implanted longitudinally in the bone and having a length to extend across the fracture and exit from the bone and a second leg joined to the first leg by a bend, said bend having a size and shape so that the second leg extends linearly backwards backwardly in longitudinal juxtaposition with the first leg at a vertical spacing distance therefrom to overlie overly a superficial surface of the bone, said first leg being securely implanted in the bone such that a longitudinal pulling force applied to the second leg will produce tension in the wire element and apply compression across the fracture, and

means associated with said second leg and including a fixing element insertable in the bone for securing the second leg to the bone to maintain the tension developed in the wire element and continue to apply the compression across the fracture.

38. (Currently Amended) An implant as claimed in claim 37, wherein said wire element has a pair of said first legs and a pair of said second legs, each pair of first and second legs being joined by a respective said bend, said pair of second legs being straight and connected together by a further bend which lies predominantly in a plane with the second legs.

39. (Previously presented) An implant as claimed in claim 37, wherein said first and second legs have different cross-sectional areas.

40. (Currently Amended) An implant as claimed in claim 38, wherein said means to maintain the tension in the wire element comprises a washer engageable with said pair of second legs, said fixing element comprising and a bone screw for securing the washer with

respect to the bone.

41. (Previously presented) An implant as claimed in claim 37, wherein said pair of second legs cross one another.

42. (Previously presented) An implant as claimed in claim 37, wherein said pair of second legs are spaced from one another.

43. (Previously presented) An implant as claimed in claim 37, further comprising a tensioning device engageable with said second leg to develop said tension in the wire element.

44. (Previously presented). An implant as claimed in claim 43, wherein said tensioning device comprises a counter-bearing jaw adapted to be secured with respect to the bone and a slidable actuator jaw engageable with said second leg and movable with respect to said counter-bearing jaw to develop said tension force in said wire element.

45. (Previously presented) An implant as claimed in claim 44, wherein said tensioning device further comprises a pair of gripper arms hingeably connected together and respectively connected to said counter-bearing jaw and said actuator jaw.

46. (Previously presented) An implant as claimed in claim 37, wherein the means to maintain the tension in the wire element comprises a hook on said second leg adapted for being impacted into the bone.

47. (Previously presented) An implant as claimed in claim 46, wherein said hook is formed by a bend at an end of said second leg.

48. (Previously presented) An implant as claimed in claim 37, wherein said wire element is continuous and includes said first and second legs.

49. (Previously presented) An implant as claimed in claim 38, wherein said first pair of legs are slightly curved outwardly away from one another.

50. (Previously presented) An implant as claimed in claim 38, wherein said pair of first legs extends beyond said further bend.

51. (Previously presented) An implant as claimed in claim 37, wherein said first leg is longer than said second leg.

52. (Previously presented) A method for fixation of a bone fracture and for applying compression across the fracture, said method comprising the steps of:

providing a wire element having a first leg extending longitudinally and a second leg joined to the first leg by a bend so that the second leg extends backwardly in longitudinal juxtaposition with the first leg in vertically spaced relation,

implanting the first leg longitudinally in a fractured bone such that the first leg extends across the fracture and said bend extends outwards of the bone and the second leg extends over a superficial surface of the bone,

applying a pulling force on the second leg to develop tension in the wire element and produce compression across the fracture, and

securing the second leg to the bone while the wire element is in tension.

53. (Previously presented) A method as claimed in claim 52, comprising forming the wire element with a pair of said first legs and a pair of said second legs which are joined to one another by respective said bends, said pair of second legs being connected by a further bend extending in a plane substantially perpendicular to the bends connecting the first and second pair of legs.

54. (Previously presented) A method as claimed in claim 53 wherein said pulling force is applied to said further bend.

55. (Previously presented) A method as claimed in claim 52 wherein the wire element is secured to the bone while in tension by engaging a washer with the pair of second legs and securing the washer to the bone.

56. (Currently Amended) A fracture fixation implant as claimed in claim 1, wherein the wires of said first and second portions have different diameters.

57. (Currently Amended) A method of using an the implant of claim 37 for fixation of a bone fracture and for applying compression across the fracture, the implant including:

a wire element having a first leg constructed and arranged to be implanted longitudinally in the bone and having a length to extend across the fracture and exit from the bone and a second leg joined to the first leg by a bend, said bend having a size and shape so that the second leg extends linearly backwards in longitudinal juxtaposition with the first leg at a vertical spacing distance therefrom to overlie a superficial surface of the bone, said first leg being securely implanted in the bone such that a longitudinal pulling force applied to the second leg will produce tension in the wire element and apply compression across the fracture, and

means associated with said second leg and including a fixing element insertable in the bone for securing the second leg to the bone to maintain the tension developed in the wire element. and continue to apply the compression across the fracture.

said method comprises comprising the steps of:

implanting the first leg longitudinally in the a fractured bone such that the first leg extends across the fracture and said bend extends outwards of the bone and the second leg extends over a superficial surface of the bone,

applying a pulling force on the second leg to develop the tension in the wire element and produce compression across the fracture, and

securing the second leg to the bone while the wire element is in tension to maintain the compression across the fracture.

58. (Previously presented) A method as claimed in claim 57, comprising forming the wire element with a pair of said first legs and a pair of said second legs which are joined to one another by respective said bends, said pair of second legs being connected by a further bend extending in a plane substantially perpendicular to the bends connecting the first and second pair of legs.

59. (Previously presented) A method as claimed in claim 58 wherein said pulling force is applied to said further bend.

60. (Previously presented) A method as claimed in claim 57 wherein the wire element is secured to the bone while in tension by engaging a washer with the pair of second legs and securing the washer to the bone.

61. (New) A fracture fixation implant as claimed in claim 1 wherein said first portion comprises a leg having a distal end which is tapered for implanting in the bone.

62. (New) An implant as claimed in claim 37 wherein said first leg has a distal end which is tapered for implanting in the bone.

63. (New) An implant as claimed in claim 1 wherein said first portion is of a size and length to remain impacted in the bone and resist the pulling force applied to the second portion.

64. (New) An implant as claimed in claim 37 wherein said first leg is of a size and length to remain impacted in the bone and resist the pulling force applied to the second portion.